

## REMARKS

Entry of the foregoing and reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested in light of the following remarks.

## STATUS OF CLAIMS

Claims 23-48 remain in this application. Claims 1-22 were previously cancelled. All claims have been amended.

## DISCUSSION OF AMENDMENTS

The foregoing amendment to the specification corrects typographical or linguistic errors only.

Claim 23 has been amended to recite that the polyorganosiloxane (POS) resin crosslinks through polycondensation; it will be apparent from the remarks below that it is the fact that the POS resin has at least three hydrolyzable/condensable OH and/or OR<sup>1</sup> groups which allows it to crosslink through polycondensation. Claim 23 has been further amended to define the siloxy units M, D, T and Q and, since each of M, D and T have R<sup>3</sup> groups in their definitions, to also define R<sup>3</sup> therein.

Claims 24-48 have been amended so that each begins with "The" rather than "A". In claims 27 and 28, "Claim" has been changed to "claim" to be consistent with the remaining claims. Moreover, claim 36 has been amended so that it refers to claim 23 for the definition of R<sup>3</sup>, and claim 39 has been amended to address the 112 rejection.

It is apparent from the foregoing that no new matter has been added by any of these amendments.

## CLAIM FOR FOREIGN PRIORITY

The Examiner has acknowledged the claim for foreign priority and the certified copy filed during the international phase, and this acknowledgment is appreciated. However, on January 25, 2007, applicants also filed a certified copy of the priority document and a verified English translation thereof in the present application and

applicant would appreciate acknowledgment of those papers as well. Indeed, upon checking the electronic file history in Private PAIRS, the undersigned notes that among the papers filed on January 25, 2007, the 166 page document listed as a certified copy of the foreign patent application consists of three separate documents:

- (1) the certified copy of the foreign priority document, FR 0400548;
- (2) the verified English translation of item (1) above; and
- (3) a STATEMENT IN COMPLIANCE WITH 37 C. F. R. § 1.57(a) offering remarks with respect to the certified copy of FR 04 00548 and its verified English translation.

Because of the fact that item (3) was entered erroneously in the middle of a 166 page document rather than as a separate paper as applicants had filed it, it is believed that this document has not been noticed by the Examiner up until now. To facilitate the Examiner's review, a further copy of this document is appended to the present Reply and Amendment.

The reasons that items (1), (2) and (3) above were filed in this case are explained both in the Remarks section of the Preliminary Amendment filed July 21, 2006 and in the Statement in Compliance with 37 C.F.R. § 1.57(a) filed January 25, 2007 (a further copy of which is appended hereto). As noted in those papers, structural formulas which were present in the priority application were inadvertently omitted from the PCT application, but were inserted in the claims presented in the Preliminary Amendment filed July 21, 2006. Applicants then obtained a certified copy of the French priority application and a verified English translation thereof, and filed these on January 25, 2007, together with the Statement in Compliance with 37 C.F.R. § 1.57(a) identifying where each omitted structure can be found in the certified copy and in the verified translation, thus complying with the requirements of 37 C.F.R. § 1.57(a) and MPEP 201.17. Acknowledgment is respectfully requested.

#### **INFORMATION DISCLOSURE STATEMENT**

The Examiner's acknowledgment of applicants' First Information Disclosure Statement and return of a fully initialed copy of applicants' Form PTO-1449 are noted, with thanks.

### **OBJECTION TO THE SPECIFICATION**

The disclosure has been corrected above as suggested by the Examiner.  
This is believed to obviate the record objection.

### **CLAIM OBJECTIONS**

Claim 23 has been amended to include the missing definitions, obviating the record rejection of that claim.

It is believed that the Examiner has misread Claim 39 and that no amendment of part (i) is required. Part (i) places further limitations on C-1, which must have formula (III) in which (a) and (b) set forth certain requirements. The "(III)" is not a third feature to be defined, but is part of the expression "of formula (III)" used in part (b). Part (a) extends over three lines, while part (b) extends over two lines. Withdrawal of the objection is in order and respectfully solicited.

As to the objection to Claims 24-48, it is not believed that the original wording is acceptable. Nevertheless "A" has been changed to "The" in each of these claims. Thus, the objection has been obviated.

### **CLAIM REJECTIONS - 35 USC § 112**

Claims 39 and 40 have been rejected under 35 USC § 112, second paragraph, as indefinite because of the presence of the expression "may be obtained" in claim 39, from which claim 40 depends. Claim 39 has been amended above to recite "is obtained" instead of "may be obtained." This amendment is believed to obviate the record § 112 rejection.

### **CLAIM REJECTIONS - 35 USC § 103**

Claims 23-48 have been rejected under 35 USC § 103(a) as being unpatentable over Bohin et al. US Patent Application Pub. No. US 2002/0082377 A1 (hereafter Bohin). Applicants submit that this rejection is untenable and must be withdrawn.

Bohin discloses a coating composition comprising an adhesion promoter which is the combination of three ingredients:

- (4.1) at least one alkoxyated organosilane containing per molecule at least one C<sub>2</sub>-C<sub>6</sub> alkenyl group, preferably characterized by the formula described in claim 2; this formula contains alkoxy groups OR<sup>5</sup> and one or more alkyl groups R<sup>4</sup> in addition to the requisite at least one C<sub>2</sub>-C<sub>6</sub> alkenyl group;
- (4.2) at least one organosilicone compound which includes at least one epoxy radical; and
- (4.3) at least one metal alkoxide of general formula M(OJ)<sub>n</sub>, in which:  
M is chosen among Ti, Zr, Ge, Li, Mn, Fe, Al and Mg,  
J is a linear or branched C<sub>2</sub>-C<sub>8</sub> alkyl group,  
n is the valency of M.

Formula (4.1) of Bohin encompasses the characteristics of C-1 in claim 23 of the present application which is a silane having:

anchorage functions like alkoxy groups and  
hydrophobic functions like alkyl groups.

The (4.2) definition of Bohin encompasses B-3/2 compound in system B described in claim 23 of the present application.

The (4.3) formula of Bohin encompasses the characteristics of B-1 compound in system B described in claim 23 of the present application.

The composition of Bohin comprises further:

- (5) at least one polyorganosiloxane (POS) resin containing at least one alkenyl residue, preferably vinyl residue (see page 4, paragraphs [0101] and [0105]) and at least 2 different functional units selected from M, D, T and Q units, at least one of these functional units being a T or Q unit; see page 4, paragraph [0101] and [0102] of the reference;
- (1) at least one polyorganosiloxane having, per molecule, at least 2 C<sub>2</sub>-C<sub>6</sub> alkenyl groups linked to the silicone,
- (2) at least one polyorganosiloxane having, per molecule, at least 2 hydrogen atoms linked to the silicone, and
- (3) a catalytically effective amount of at least one catalyst composed of at least one metal belonging to the platinum group.

The definition of the POS resin (5) of Bohin is close to the POS resin in system A in claim 23 of the present application, except that the POS resin of the present invention further comprises at least 3 hydrolyzable/condensable groups like hydroxy or alkoxy groups. It will be seen below that this difference is crucial.

The composition described in Bohin is used as coating composition on textile supports to improve their mechanical properties and thermal protection; see page 7, paragraph [0192].

Thus, Bohin discloses a composition with a B-1 compound, a C-1 compound and a POS resin containing at least 2 different units selected from M, D, T and Q units at least one of these functional units being a T or Q unit except that this POS resin is NOT described as comprising at least hydrolyzable/condensable groups like hydroxyl or alkoxy groups.

According to the Examiner, it would be obvious for a person having ordinary skill in the art to replace alkenyl groups, and more preferably vinyl groups, with hydroxyl or alkoxy groups because of their stronger adhesion properties. Applicants do not agree with the conclusions of the Examiner.

However, no source is cited to support the Examiner's position; therefore, the analysis of non-obviousness by the Examiner is incomplete.

One of the technical problems solved by the present invention is to improve the hydrophobic properties of a silicone coating composition comprising a POS resin, in order to give better water resistance and thus better impermeability to the treated textile (see page 7, lines 3-8, of the as-filed specification).

First, the present invention is related to those silicone compositions that react through polycondensation. This is not the same in Bohin which is related to silicone compositions that react through polyaddition or hydrosilylation and need for this reaction to have in the mixture POS with alkenyl (e.g., vinyl) groups and POS having H.

Second, according to the present invention, the hydrophobic properties are due to the hydrophobic functions of the compound C-1; see page 15, lines 8-9 of the as-filed specification. To improve its adhesion on the sheath formed by the POS resin, compound C-1 contains hydroxy or alkoxy functions able to react with the POS



resin containing hydroxyl or alkoxy residues, enabling C-1 to stick to the silicone sheath; see page 15, lines 8-9 of the as-filed specification.

Therefore, having a POS resin having hydroxyl or alkoxy functions is essential to the adhesion of C-1 to the POS in the present invention.

In addition, the present invention does not use conventional POS having OH or OR groups. The present invention needs to incorporate POS having **at least three OH and/or OR groups per molecule** in order to ensure both the cross-linking and the binding of the C-1 compound.

If one modifies the POS in Bohin by replacing some vinyl groups with OH/OR groups, there will certainly be a problem of reactivity of the POS to form the resin. Would we have a POS crosslinking through hydrosylation or through polycondensation? These are not compatible. The person skilled in the silicone art simply does not reason this way. There can be no incentive in doing this in the field of silicones. And further, there would be no incentive or suggestion that the number of OH or OR groups in the POS would be higher than a threshold as in the invention. Consequently, on the basis of the knowledge disclosed in Bohin, the person skilled in the art would have been led to look for an improvement in terms of the additives, not the POS itself which is the fundamental part of a composition crosslinkable through hydrosilylation.

In view of the foregoing, it is clear that Bohin neither describes nor suggests the present invention. Withdrawal of the record § 103 rejection is believed to be in order.

It is believed that all record rejections and objections have been overcome.  
Further, favorable action in the form of a Notice of Allowance is earnestly solicited.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: November 23, 2009

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Attachment:: Copy of Statement in Compliance with 37 C.F.R. § 1.57(a)  
previously filed on January 25, 2007

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	<b>MAIL STOP PCT</b>
	)	
Martial Deruelle et al.	)	Group Art Unit:
	)	
Application No.: 10/586,740	)	Examiner:
	)	
Filed: national phase of PCT/FR2005/000147	)	Confirmation No.: 6000
filed January 21, 2005	)	
	)	
For: USE OF A SILICONE FORMULATION	)	
FOR THE DURABLE	)	
FUNCTIONALISATION OF TEXTILES	)	
FOR SPORTS CLOTHING	)	

**STATEMENT IN COMPLIANCE WITH 37 C.F.R. § 1.57(a)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Together with the accompanying certified copy of FR 04 00548 and verified English translation thereof, the following remarks are offered:



**REMARKS**

In the Preliminary Amendment submitted July 21, 2006, applicants amended the specification and claims to insert missing structural formulas which were inadvertently omitted in a number of locations in the PCT application. These structures are all contained in the priority application, FR 04 00548 of January 21, 2004. The priority of FR 04 00548 was claimed in the international phase and again claimed in applicants' Application Data Sheet and Preliminary Amendment submitted on July 21, 2006 upon commencement of the U.S. national stage. Applicants are filing herewith a certified copy of priority application FR 04 00548 together with a verified English translation thereof and point out below the support for the amendments set forth in the Preliminary Amendment which is to be found in FR 04 00548 and its English translation:

<u>Preliminary Amendment in Present Appln.</u>	<u>FR 04 00548</u>	<u>Translation of FR 04 00548</u>
(1) replacing paragraph on page 12, lines 8-23 with new paragraph - - formula <b>X</b> is replaced with formula (B-3/1)	(1) page 10, lines 6-21	(1) paragraph beginning on page 12, line 10 and ending on page 13, line 1
(2) replacing paragraph beginning on page 13, line 1 and ending on page 14, line 13 with new paragraph - - first formula <b>X</b> is replaced with formula (B-3/2-a) and second formula <b>X</b> is replaced with a specific formula	(2) page 10, line 24 to page 12, line 7	(2) paragraph beginning on page 13, line 4 and ending on page 14, line 20
(3) replacing paragraph beginning on page 16, line 11 and ending on page 17, line 10 with new paragraph - - formula <b>X</b> is replaced with formula (III)	(3) page 13, line 23 to page 14, line 19	(3) paragraph beginning on page 16, line 18 and ending on page 17, line 24
(4) replacing paragraph beginning on page 18, line 16 and ending on page 19, line 14 with new paragraph -- formula <b>X</b> is replaced with formula (VI)	(4) page 15, line 16 to page 16, line 11	(4) paragraph beginning on page 19, line 4 and ending on page 20, line 7

<u>Preliminary Amendment in Present Appln.</u>	<u>FR 04 00548</u>	<u>Translation of FR 04 00548</u>
(5) new Claim 39, which is a corrected version of Claim 13 of the PCT application	(5) Claim 13	(5) Claim 13

In light of the foregoing, it is apparent that the amendments set forth in the Preliminary Amendment submitted July 21, 2006 are properly based on the priority application and that applicants have complied with all of the provisions of 37 C.F.R. § 1.57(a), including supplying a copy of the prior filed application and an English translation thereof.

Respectfully submitted,

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